

**Work Order ID 96930**

Tuesday, February 12, 2013 9:20:53 AM

**\*96930\***

Page 1

Item ID: D4007-3

Accept

**\*N900040100\***

Setup

Start

**\*NS1\***

Revision ID:

Item Name: Support

Stop

**\*NS2\***

Start Date: 2/12/2013 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 2/20/2013 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals:

Process Plan: MFDate: 13-2-12 Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date: SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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D4007

A

170

0.00

**\*170\***

Waterjet

0.00

7 0

JM 13-2-12

FLOW CNC Waterjet

2024, 063

Prog Rev: AProg Rev: A

180

QC2- Inspect parts off machine FAI/FAIB

0.00

**\*180\***

QC

Quality Control

Memo

0.00

7 0

JM 13-2-12

190

QC8- Inspect parts - second check

0.00

**\*190\***

QC

Quality Control

Memo

0.00

OAS  
15  
13-2-12

7

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____		DISPOSITION			AGAINST DEPARTMENT/PROCESS																																							
Part No. _____		Rework <input type="checkbox"/>	Scrap <input type="checkbox"/>	Use-as-is <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Machining <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Finishing <input type="checkbox"/>	Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/>	Quality <input type="checkbox"/>	Other <input type="checkbox"/>																									
NCR No. _____		Work Order Update <input type="checkbox"/>																																										
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description			Sign & Date	Verification		QC Inspector																															
Doc/Data																																												
Equip/Tooling																																												
Operator																																												
Material																																												
Setup																																												
Other																																												
Process																																												
Supplier																																												
Training																																												
Unapproved																																												
FAULT CATEGORY																																												
Landing Gear				General																																								
				Bending <input type="checkbox"/>	Centre Not Concentric to O/S <input type="checkbox"/>	Cracks <input type="checkbox"/>	Crushed/Crimped <input type="checkbox"/>	Cuffs <input type="checkbox"/>	Heat Treat <input type="checkbox"/>	Inspection Strip in Tube <input type="checkbox"/>	Ripples in Bend <input type="checkbox"/>	Torque Waves in Extrusion <input type="checkbox"/>	Turning Sequence <input type="checkbox"/>	Wave/Twist in Tube <input type="checkbox"/>	Bend <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>	Burrs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Countersink <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Drawing <input type="checkbox"/>	Finish <input type="checkbox"/>	Folio <input type="checkbox"/>	Grain <input type="checkbox"/>	Hardware <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Misread <input type="checkbox"/>	Offset <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	<input type="checkbox"/> Other

**Work Order ID 96930**

Tuesday, February 12, 2013 9:20:53 AM

**\*96930\***

Page 2

Item ID: D4007-3

Accept

**\*N900040100\***

Setup

Start

**\*NS1\***

Revision ID:

Item Name: Support

Stop

**\*NS2\***

Start Date: 2/12/2013 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 2/20/2013 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center ID

200

**\*200\***

Small Fab

Small Fab

Operation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

0.00

0.00

BEND AS PER DRAWING

210

**\*210\***

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

ShB

0.00

13.2.13

S

PJO  
8/17/2013

220

**\*220\***

HandFinish

Hand Finishing

Chemical Conversion Coat per QSI005 4.1

0.00

Memo

0.00

5-78-13-2-13

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: *AK* Date: 13/02/19QA Closed: *CL* Date: /

Work Order: <u>96930</u>			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input checked="" type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input checked="" type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input checked="" type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
Doc/Data				2 part were scrap		DAS 16 9-89					
Equip/Tooling				1 out of tolerance		as2042					
Operator				1 crack when forming		13/2/14	Scrap + destroy				
Material	<u>13/02/13</u>	200	2	R.e. 1 - Set up 2 - Process.			None	88 13/02/13	13.2.14	as2042	
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
				Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>				Pressure/Forced <input type="checkbox"/>	
				Centre Not Concentric to O/S <input type="checkbox"/>	Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>				Temperature/Cure <input type="checkbox"/>	
				Cracks <input type="checkbox"/>	Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>				Weld <input type="checkbox"/>	
				Crushed/Crimped. <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>				Wrong Stock Pulled <input type="checkbox"/>	
				Cuffs <input type="checkbox"/>	Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>					
				Heat Treat <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>					
				Inspection Strip in Tube <input type="checkbox"/>	Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>				Other <input type="checkbox"/>	
				Ripples in Bend <input type="checkbox"/>	Offset <input type="checkbox"/>						
				Torque Waves in Extrusion <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>						
				Turning Sequence <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>						
				Wave/Twist in Tube <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>						

**Work Order ID 96930**

Tuesday, February 12, 2013 9:20:53 AM

**\*96930\***

Page 3

Item ID: D4007-3

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Item Name: Support

Stop

**\*NS2\***

Start Date: 2/12/2013 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 2/20/2013 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

230

**\*230\***

QC

Quality Control

QC7-Inspect Chemical Conversion Coat

0.00

DAS  
15  
8-89

240

**\*240\***

Packaging

Packaging

Identify as per dwg & Stock Location: ST 240 0.00

0.00

0.00

S

250

**\*250\***

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

13/2/14 AF

MF  
13-2-14

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework	<input type="checkbox"/>	Skid-tube	<input type="checkbox"/>	Crosstube	<input type="checkbox"/>	Water Jet	<input type="checkbox"/>	Engineering
			Scrap	<input type="checkbox"/>	Machining	<input type="checkbox"/>	Small Fab	<input type="checkbox"/>	Prod. Eng. Coor.	<input type="checkbox"/>	Quality
			Use-as-is	<input type="checkbox"/>	Thermoforming	<input type="checkbox"/>	Finishing	<input type="checkbox"/>	Rec/Store/Packaging	<input type="checkbox"/>	Other
			Work Order Update	<input type="checkbox"/>	Large Fab	<input type="checkbox"/>	Composite	<input type="checkbox"/>	Supplier	<input type="checkbox"/>	
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
				Bending	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced	
				Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure	
				Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld	
				Crushed/Crimped.	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled	
				Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>		
				Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>		
				Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other	
				Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>		<input type="checkbox"/>		
				Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>		<input type="checkbox"/>		
				Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>		<input type="checkbox"/>		
				Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>		<input type="checkbox"/>		

# Picklist Print

Tuesday, February 12, 2013 9:13:34 AM

Page 1

Work Order ID: 96930

Parent Item: D4007-3

Parent Item Name: Support

Start Date: 2/12/2013

Required Date: 2/20/2013

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP rev A 09.12.18 new Issue Prelim EC verified: DD  
562 DD verified by:EC IPP Rev:B 10.05.03 as per ECN10-

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4007-3P Support		Purchased	No			110	Each	0.0000	1	1	0	JM 3-2-12	

m7024t3  
0.063

123701  
123279

123701  
123279

NCR: Yes / No

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

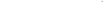
QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS									
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>								
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>								
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>								
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>									
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector				
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear				General											
<input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				<input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio				<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	
												<input type="checkbox"/> Other			

DART AEROSPACE LTD	Work Order:	96930
Description: Top Support Bracket	Part Number:	D4007-3
Inspection Dwg: D4007	Rev: A	Page 1 of 1

## **FIRST ARTICLE INSPECTION CHECKLIST**

Measured by: <u>JM</u>	Audited by: <u>15 8-20</u>	Preliminary Approval:
Date: <u>13-2-12</u>	Date: <u>13-2-12</u>	Date:

Rev	Date	Change	Revised by	Approved
A	12.02.01	New Issue	KJ	 

8

7

6

5

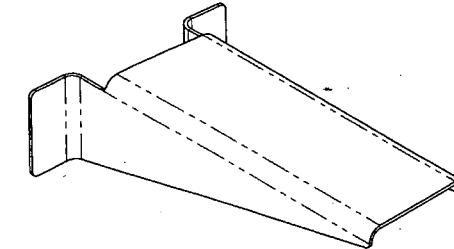
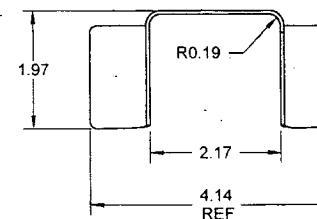
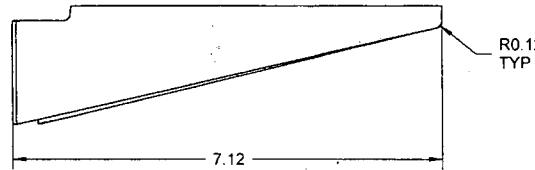
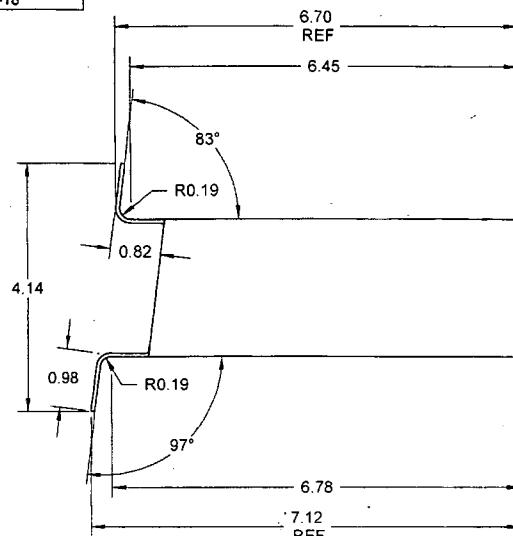
4

3

2

1

DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4007-3	JCA-M47-2-18



496930

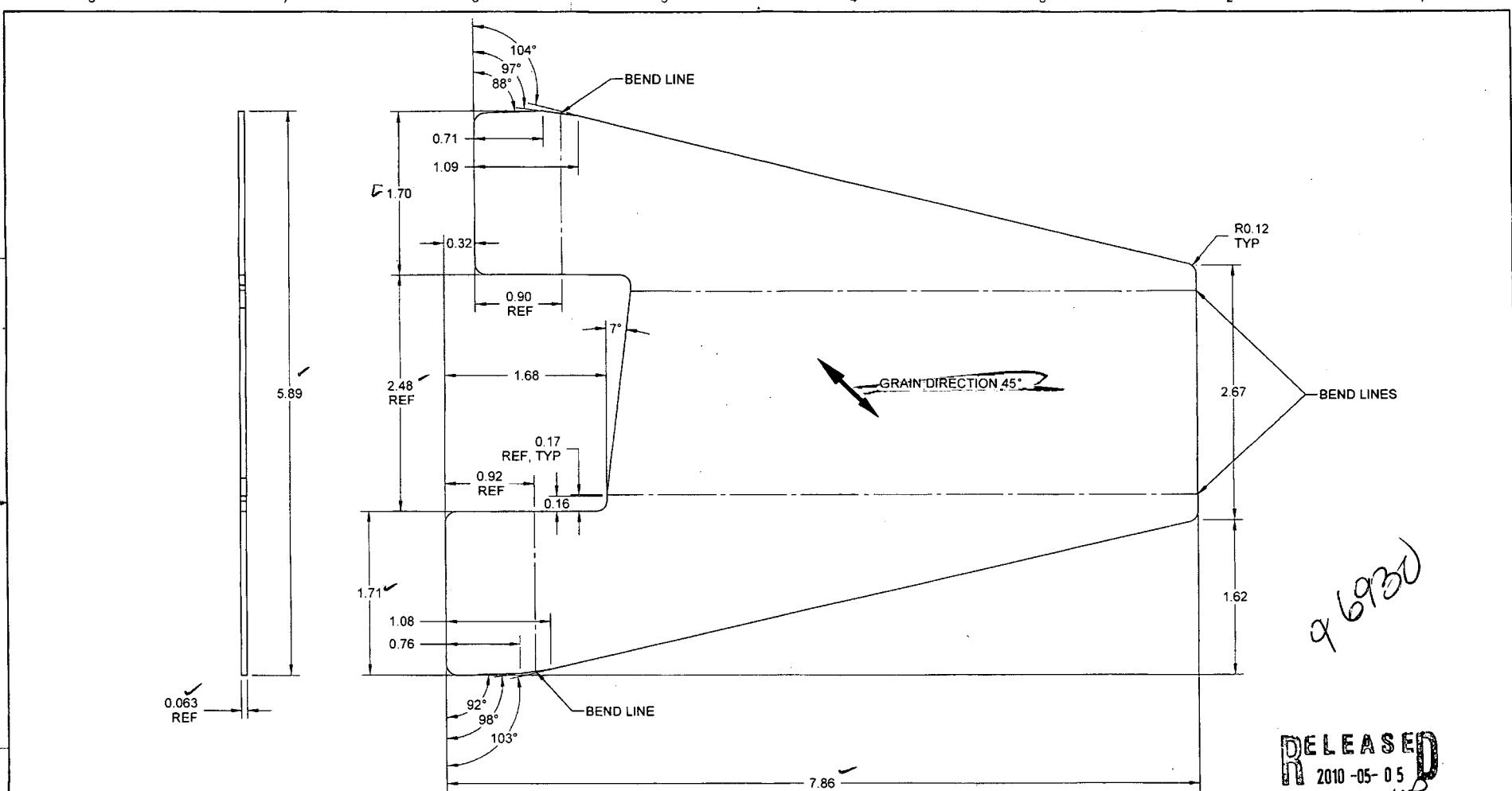
### D4007-3 TOP SUPPORT BRACKET

#### NOTES:

- 1) MATERIAL: MADE FROM D4007-3F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4007-3" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.19 lbs

DESIGN		DART AEROSPACE LTD
DRAWN		HAWKESBURY, ONTARIO, CANADA
CHECKED		REV. A
MFG. APPR.		D4007
APPROVED		SHEET 3 OF 5
DE APPR.		TITLE
DATE	10.02.05	SCALE
		NTS
SUPPORT		
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RELEASED  
R 2010-05-05  
JN

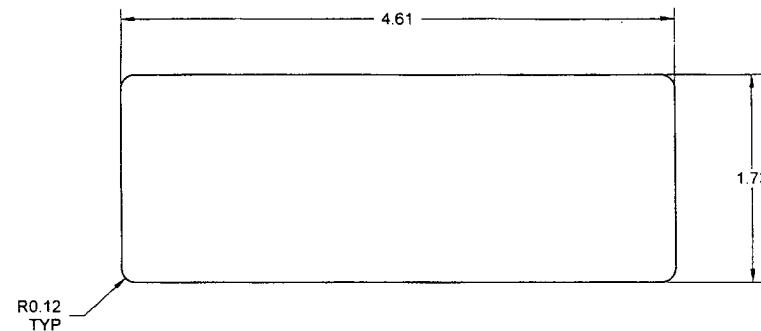


NOTES:  
 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK  
 PER QQ-A-250/4 OR AMS-QQ-A-250/4  
 OR AMS 4037 OR ASTM B209  
 REF DART SPEC M2024T3.063

2) FINISH: N/A  
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
 4) UNITS: INCHES UNLESS OTHERWISE NOTED  
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
 6) IDENTIFICATION: N/A  
 7) WEIGHT: 0.19 lbs

DESIGN		DART AEROSPACE LTD
DRAWN	<i>BS</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>BS</i>	DRAWING NO.
MFG. APPR.	<i>BS</i>	REV. A
APPROVED	<i>BS</i>	D4007
DE APPR.	<i>BS</i>	SHEET 4 OF 5
DATE	10.02.05	SCALE
		NTS
		SUPPORT
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DART AEROSPACE PART NUMBER	JOHN CAMERON AVIATION PART NUMBER
D4007-5	JCA-M47-2-24



D4007-5 PACKER

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.080 THICK  
PER QQ-A-250/11 OR AMS-QQ-A-250/11  
OR AMS 4025 OR AMS 4027 OR ASTM B209  
REF DART SPEC M6061T6S.080
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4007-5" AND B/N USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.06 lbs

DESIGN	<i>AB</i>	DART AEROSPACE LTD	
DRAWN	<i>AB</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AB</i>	DRAWING NO. D4007	
MFG. APPR.	<i>AB</i>	REV. A	
APPROVED	<i>AB</i>	SHEET 5 OF 5	
DE APPR.	<i>AB</i>	TITLE	SCALE
DATE	10.02.05	SUPPORT NTS	

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*a6930*  
RELEASED  
2010-05-05  
*MP*